

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number
WO 2005/014806 A2

(51) International Patent Classification⁷: C12N 12/11

(21) International Application Number:
PCT/US2004/019229

(22) International Filing Date: 10 June 2004 (10.06.2004)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/478,076 12 June 2003 (12.06.2003) US

(71) Applicant (for all designated States except US): NUCLEONICS, INC. [US/US]; 14 Spring Mill Drive, Malvern, PA 19335-1200 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): PACHUK, Catherine, J. [US/US]; 3212 New Park Circle, Lansdale, PA 19446 (US). SATISHCHANDRAN, C. [US/US]; 605 Shepard Lane, Lansdale, PA 19446 (US). ZURAWSKI, Vincent, R., Jr. [US/US]; 1269 North Gate Road, West Chester, PA 19382 (US). MINTZ, Liat [IL/US]; 2 Kulesa Court, East Brunswick, NJ 08816 (US).

(74) Agents: GEIGER, Kathleen, W. et al.; Potter Anderson & Corroon LLP, 1313 N. Market Street, Wilmington, DE 19801 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

— without international search report and to be republished upon receipt of that report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CONSERVED HBV AND HCV SEQUENCES USEFUL FOR GENE SILENCING

(57) Abstract: Conserved consensus sequences from known hepatitis B virus strains and known hepatitis C virus strains, which are useful in inhibiting the expression of the viruses in mammalian cells, are provided. These sequences are useful to silence the genes of HBV and HCV, thereby providing therapeutic utility against HBV and HCV viral infection in humans.



WO 2005/014806 A2

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
17 February 2005 (17.02.2005)

PCT

(10) International Publication Number
WO 2005/014806 A3

- (51) International Patent Classification⁷: C12N 15/11, A61K 31/7088, 48/00
- (21) International Application Number: PCT/US2004/019229
- (22) International Filing Date: 10 June 2004 (10.06.2004)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/478,076 12 June 2003 (12.06.2003) US
- (71) Applicant (for all designated States except US): NUCLEONICS, INC. [US/US]; 14 Spring Mill Drive, Malvern, PA 19335-1200 (US).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): PACHUK, Catherine, J. [US/US]; 3212 New Park Circle, Lansdale, PA 19446 (US). SATISHCHANDRAN, C. [US/US]; 605 Shepard Lane, Lansdale, PA 19446 (US). ZURAWSKI, Vincent, R., Jr. [US/US]; 1269 North Gate Road, West Chester, PA 19382 (US). MINTZ, Liat [IL/US]; 2 Kulessa Court, East Brunswick, NJ 08816 (US).
- (74) Agents: GEIGER, Kathleen, W. et al.; Potter Anderson & Corroon LLP, 1313 N. Market Street, Wilmington, DE 19801 (US).
- (81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).
- Published:
— with international search report
- (88) Date of publication of the international search report: 1 December 2005
- For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: CONSERVED HBV AND HCV SEQUENCES USEFUL FOR GENE SILENCING

(57) Abstract: Conserved consensus sequences from known hepatitis B virus strains and known hepatitis C virus strains, which are useful in inhibiting the expression of the viruses in mammalian cells, are provided. These sequences are useful to silence the genes of HBV and HCV, thereby providing therapeutic utility against HBV and HCV viral infection in humans.

WO 2005/014806 A3